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LISTING OF THE CLAIMS

1. (Currently Amended) A process to ~~inhibit or limit the decomposition of~~ deactivate a halide-containing olefin oligomerization catalyst system and inhibit or limit the decomposition of the deactivated catalyst system during recovery of an olefin oligomerization product comprising the steps of:

   a) forming an intermediate stream by contacting an olefin oligomerization reactor effluent stream which comprises olefin product(s), catalyst system, and heavies with an alcohol that is soluble in any portion of the reactor effluent stream thereby deactivating the catalyst system; and

   b) separating the intermediate stream of step (a) into at least one product stream comprising the olefin oligomerization product and at least one heavies stream;

   wherein the separation comprises a distillation comprising a reboiler and material passed through the reboiler is maintained below about 190 °C, and

   wherein the catalyst system comprises a chromium source, a pyrrole-containing compound and an alkylaluminum compound and wherein the alcohol is added in an amount to effect a mole alcohol to mole aluminum ratio between about 2.5 and about 1.5.

2. (Canceled)

3. (Original) The process of claim 1 wherein the reactor effluent stream comprises olefin product(s); an olefin oligomerization catalyst system; an organic diluent; one or more mono-olefins; and polymer.

4. (Original) The process of claim 1 wherein the alcohol has a boiling point different from the olefin product in the reactor effluent stream.

5. (Original) The process of claim 1 wherein the alcohol has 6 or more carbon atoms per molecule.

6. (Original) The process of claim 1 wherein the olefin oligomerization catalyst system comprises a halogenated alkylaluminum compound.

7-9 (Canceled)

10. (Previously Presented) The process of claim 1 wherein material passed through the reboiler is maintained below about 175°C.

11. (Original) The process of claim 1 wherein the alcohol is selected from the group of 1-hexanol, 3-hexanol, 2-ethyl-1-hexanol, 3-octanol, 1-heptanol, 2-heptanol, 3-heptanol, 4-heptanol, 2-methyl-3-

heptanol, 1-octanol, 2-octanol, 4-octanol, 7-methyl-2-decanol, 1-decanol, 2-decanol, 3-decanol, 4-decanol, 5-decanol, 2-ethyl-1-decanol, and mixtures thereof.

12. (Original) The process of claim 1 wherein the alcohol is selected from the group of diols and polyols.

13. (Previously Presented) The process of claim 1 wherein the distillation process includes at least two distillation stages.

14. (Original) The process of claim 1 wherein the alcohol has been treated to minimize water content.

15. (Previously Presented) The process of claim 1 further comprising a step of minimizing water content of the alcohol before step (a).

16. (Original) The process of claim 15 wherein the step of minimizing the water content of the alcohol comprises contacting the alcohol with an adsorbent capable of adsorbing water.

17. (Previously Presented) The process of claim 1 wherein the olefin oligomerization product comprises one or more olefin trimers.

18. (Currently Amended) A process to ~~inhibit or limit the decomposition of~~ deactivate a halide-containing olefin oligomerization catalyst system and inhibit or limit the decomposition of the deactivated catalyst system during recovery of an olefin oligomerization product comprising the steps of:

a) minimizing water content in an alcohol;

b) forming an intermediate stream by contacting an olefin oligomerization reactor effluent stream which comprises olefin product(s), catalyst system, and heavies with the alcohol thereby deactivating the catalyst system; and

c) separating the intermediate stream of step (b) into at least one olefin oligomerization product stream and at least one heavies stream;

wherein the separation comprises a distillation comprising a reboiler and material passed through the reboiler is maintained below about 190 °C, and

wherein said catalyst system comprises a chromium source, a pyrrole-containing compound and an alkylaluminum compound and wherein the alcohol is soluble in any portion of the reactor effluent stream.

19. (Canceled)

20. (Previously Presented) A process according to claim 18 wherein said reactor effluent stream comprises olefin product(s); the olefin oligomerization catalyst system; an organic diluent; one or more mono-olefins; and heavies.

21. (Original) A process according to claim 18 wherein the olefin oligomerization catalyst system comprises a halide compound and an alkylaluminum compound.

22. (Original) A process according to claim 1 wherein the olefin oligomerization catalyst system comprises a halide compound and a metal alkyl compound.

23. (Original) A process according to claim 1 wherein the olefin oligomerization catalyst system comprises a mixture of an alkylaluminum compound and a halogenated alkylaluminum compound.

24. (Original) A process according to claim 18 wherein the olefin oligomerization catalyst system comprises a halogenated alkylaluminum compound.

25. (Original) A process according to claim 18 wherein the olefin oligomerization catalyst system comprises a mixture of an alkylaluminum compound and a halogenated alkylaluminum compound.

26. (Previously Presented) The process of claim 6 wherein the halogenated alkylaluminum compound is diethylaluminum chloride.

27. (Original) The process of claim 24 wherein the halogenated alkylaluminum compound is diethylaluminum chloride.

28. (Original) The process of claim 18 wherein the alcohol has a boiling point different from the olefin product in the reactor effluent stream.

29. (Previously Presented) The process of claim 18 wherein the alcohol has 6 or more carbon atoms per molecule.

30. (Original) The process of claim 18 wherein the alcohol is selected from the group of 1-hexanol, 3-hexanol, 2-ethyl-1-hexanol, 3-octanol, 1-heptanol, 2-heptanol, 3-heptanol, 4-heptanol, 2-methyl-3-heptanol, 1-octanol, 2-octanol, 4-octanol, 7-methyl-2-decanol, 1-decanol, 2-decanol, 3-decanol, 4-decanol, 5-decanol, 2-ethyl-1-decanol, and mixtures thereof.

31. (Original) The process of claim 18 wherein the alcohol is selected from the group of diols and polyols.

32-34 (Canceled)

35. (Previously Presented) The process of claim 18 wherein material passed through the reboiler is maintained below 175°C.

36. (Previously Presented) The process of claim 18 wherein the distillation process includes at least two distillation stages.

37. (Currently Amended) A process to ~~inhibit or limit the decomposition of~~ deactivate a halide-containing olefin oligomerization catalyst system and inhibit or limit the decomposition of the deactivated catalyst system during recovery of an olefin oligomerization product comprising the steps of:

a) forming an intermediate stream by contacting an olefin oligomerization reactor effluent stream which comprises olefin product(s) and catalyst system with an alcohol that is soluble in any portion of the reactor effluent stream thereby deactivating the catalyst system; and

b) separating the intermediate stream of step (a) into at least one olefin oligomerization product stream;

wherein the separation of step (b) comprises a distillation comprising a reboiler and material passed through the reboiler is maintained below about 190°C.

38. (Canceled)

39. (Previously Presented) The process of claim 37 wherein material passed through the reboiler is maintained below about 175°C.

40. (Canceled)

41. (Previously Presented) The process of claim 37 wherein the distillation includes at least two distillation stages.

42. (Previously Presented) The process of claim 37 wherein the reactor effluent stream comprises olefin product(s); the olefin oligomerization catalyst system; an organic diluent; and one or more mono-olefins.

43. (Original) The process of claim 37 wherein the alcohol has a boiling point different from the olefin product in the reactor effluent stream.

44. (Original) The process of claim 37 wherein the alcohol has 6 or more carbon atoms per molecule.

45. (Original) The process of claim 37 wherein the alcohol is selected from the group of 1-hexanol, 3-hexanol, 2-ethyl-1-hexanol, 3-octanol, 1-heptanol, 2-heptanol, 3-heptanol, 4-heptanol, 2-methyl-3-heptanol, 1-octanol, 2-octanol, 4-octanol, 7-methyl-2-decanol, 1-decanol, 2-decanol, 3-decanol, 4-decanol, 5-decanol, 2-ethyl-1-decanol, and mixtures thereof.

46. (Original) The process of claim 37 wherein the alcohol is selected from the group of diols and polyols.

47. (Original) The process of claim 37 wherein the alcohol has been treated to minimize water content.

48. (Previously Presented) The process of claim 37 further comprising a step of minimizing water content in the alcohol before step (a).

49. (Original) The process of claim 48 wherein the step of minimizing the water content of the alcohol comprises contacting the alcohol with an adsorbent capable of adsorbing water.

50. (Original) The process of claim 1 wherein the alkylaluminum compound is a mixture of triethylaluminum and diethyl aluminum chloride, the alcohol is 2-ethyl-1-hexanol, and the olefin product comprises 1-hexene.

51. (Original) The process of claim 18 wherein the alkylaluminum compound is a mixture of triethylaluminum and diethyl aluminum chloride, the alcohol is 2-ethyl-1-hexanol, and the olefin product comprises 1-hexene.

52. (Previously Presented) The process of claim 37 wherein the halide-containing olefin oligomerization catalyst system is a mixture of triethylaluminum and diethyl aluminum chloride, the alcohol is 2-ethyl-1-hexanol, and the olefin product comprises 1-hexene.

53. (Previously Presented) The process of 18 wherein the olefin oligomerization product stream comprises one or more olefin trimers.

54. (Original) The process of 37 wherein the olefin oligomerization product stream comprises one or more olefin trimers.

55. (Previously Presented) The process of claim 37 wherein the halide-containing olefin oligomerization catalyst system comprises a halogenated alkylaluminum compound.

56. (Previously Presented) The process of claim 55 wherein the halogenated alkylaluminum compound comprises diethylaluminum chloride.

57. (Currently Amended) A process to ~~inhibit or limit the decomposition of~~ deactivate a halide-containing olefin oligomerization catalyst system and inhibit or limit the decomposition of the deactivated catalyst system during recovery of an olefin oligomerization product comprising the steps of:

    a) forming an intermediate stream by contacting an olefin oligomerization reactor effluent stream which comprises olefin product(s), catalyst system, and heavies with an alcohol that is soluble in any portion of the reactor effluent stream thereby deactivating the catalyst system; and

    b) separating the intermediate stream of step (a) into at least one olefin oligomerization product stream and at least one heavies stream;

    wherein the separation of step (b) comprises a distillation comprising a reboiler and material passed through the reboiler is maintained below about 190 °C, and

    wherein the catalyst system comprises active metal alkyl units, and

    wherein the alcohol is present in an amount greater than 0.1 and less than about 1.8 equivalents per equivalent of active metal alkyl units.

58. (Original) A 1-hexene stream produced by the process of claim 1.

59. (Previously Presented) A 1-hexene stream produced by the process of claim 17.

60. (Previously Presented) A 1-hexene stream produced by the process of claim 37.

61. (Previously Presented) A 1-hexene stream produced by the process of claim 57.

62. (Previously Presented) A process of claim 1, wherein the separation comprises at least two distillation stages and material passed through each reboiler is maintained below about 190°C.

63. (Previously Presented) A process of claim 18, wherein the separation comprises at least two distillation stages and material passed through each reboiler is maintained below about 190°C.

64. (Previously Presented) A process of claim 37, wherein the separation comprises at least two distillation stages and material passed through each reboiler is maintained below about 190°C.

65. (Previously Presented) A process of claim 57, wherein the separation comprises at least two distillation stages and material passed through each reboiler is maintained below about 190°C.